

New Hampshire Department of Transportation

Transportation Asset Management Governance

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New Hampshire Department of Transportation –
Transportation Asset Management Governance

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Table of Contents

1.0 Introduction..... 1

2.0 NHDOT Organizational Structure..... 1

 2.1 Overview 1

 2.2 Location of TAM Coordination within this Structure 2

3.0 TAM Governance Structure 2

 3.1 TAM/TAMP Workgroups..... 5

 Strategy Workgroup 8

 Pavement Workgroup 9

 Bridge Workgroup 9

 Intermodal Asset Workgroup..... 10

 Roadside Asset Workgroup 10

 Financial Workgroup 11

 Ad-hoc TAMP Workgroups..... 11

 3.2 TAM Steering Committee 12

 3.3 Senior Management Committee 13

 3.4 Commissioners 15

4.0 AMPS Staff..... 15

New Hampshire DOT (NHDOT) Transportation Asset Management Governance

1.0 INTRODUCTION

A key driver for advancing transportation asset management (TAM) in the New Hampshire Department of Transportation (NHDOT) is documentation of the TAM governance structure. This governance structure is used as a mechanism to make decisions, develop and enact policy, recommend initiatives and improvements, provide advice, and develop technical solutions. This document describes NHDOT's TAM governance structure, including identification of groups responsible for implementing the TAM method in the Agency and the mission, responsibilities, and typical membership of each group.

2.0 NHDOT ORGANIZATIONAL STRUCTURE

2.1 Overview

NHDOT is led by the Commissioner of Transportation. The Commissioner of NHDOT oversees a \$600 million transportation agency of over 1,600 employees with the daily mission of transportation excellence that enhances the quality of life in New Hampshire. The overall structure of NHDOT is shown in Figure 2.1.

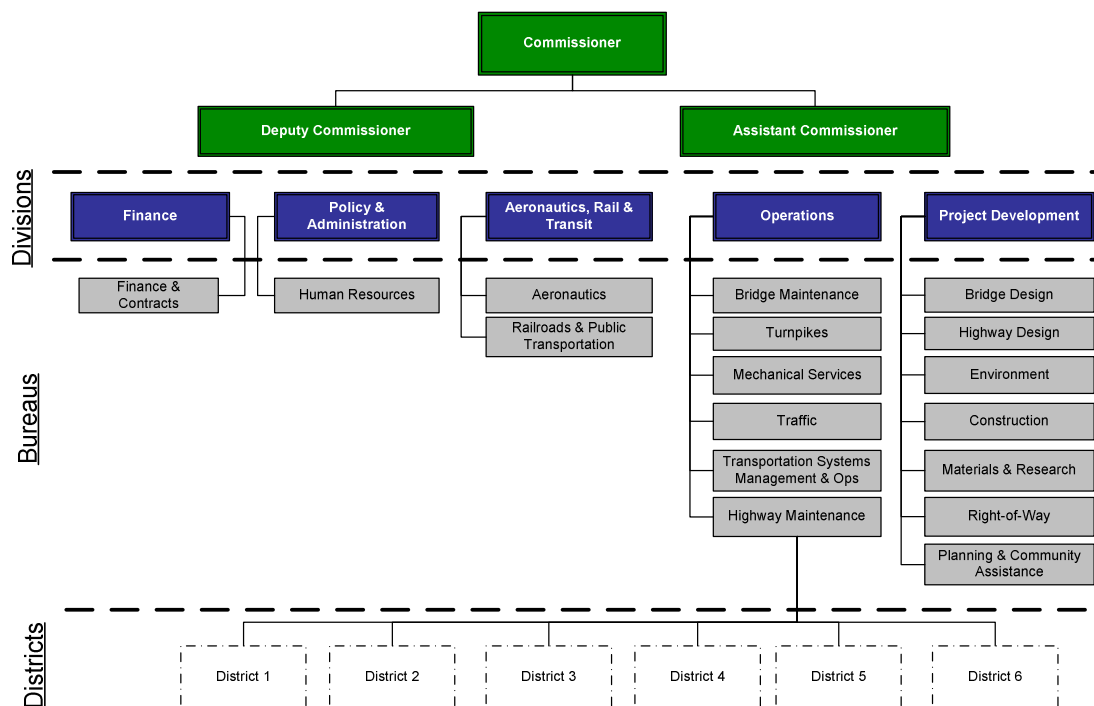


Figure 2.1 NHDOT Organizational Structure

2.2 Location of TAM Coordination within this Structure

Transportation asset management by definition resides throughout the Department – both vertically and horizontally. However, there must be a focal point to coordinate and manage the TAM efforts being undertaken by the Department so that asset management can be developed in a systematic, efficient, and effective manner.

In order for TAM to mature and grow, NHDOT recognizes that a strong “TAM Champion” is needed at the Executive level. The Executive TAM Champion, currently the Deputy Commissioner, serves this role. Among other responsibilities, the TAM Champion proves to the Agency that TAM is a priority at the highest levels of the organization. NHDOT recognizes that without this level of Executive support TAM is not possible. Overall TAM coordination responsibilities reside in the Bureau of Planning & Community Assistance. This bureau contains the Asset Management, Performance, and Strategies (AMPS) office. The TAM Coordinator for the Agency is the Administrator of AMPS.

Establishing coordination and management “ownership” provides clear accountability for asset management implementation and stewardship and ensures that efforts throughout NHDOT are coordinated and performed in a logical sequence. The TAM Coordinator will not be performing all of the work needed to implement TAM, rather they guide the effort and ensure progress is being made in a structured manner.

The TAM Champion and TAM Coordinator are the driving forces behind moving TAM from its current maturity level to an integrated process.

3.0 TAM GOVERNANCE STRUCTURE

The TAM governance structure consists of cross-cutting membership throughout the Department. The Commissioners are the final decision making authority on all TAM matters. The structure consists of a four-tier system as follows:

1. Commissioners;
2. Senior Management Committee;
3. TAM Steering Committee; and
4. TAM Workgroups.

The first three groups’ membership remains fairly constant over time. The fourth group’s membership (workgroups) is determined by the primary thrust, or leading initiatives being worked on during a given time period. NHDOT’s internal asset management governance structure is illustrated in figure 3.1. The structure is functional rather than organizational. At this time, other than AMPS, these teams are not new, dedicated groups of staff but rather additional functional responsibilities shared by groups of staff from across program areas. Figure 3.2 provides an overview of the role of each group in TAM efforts.

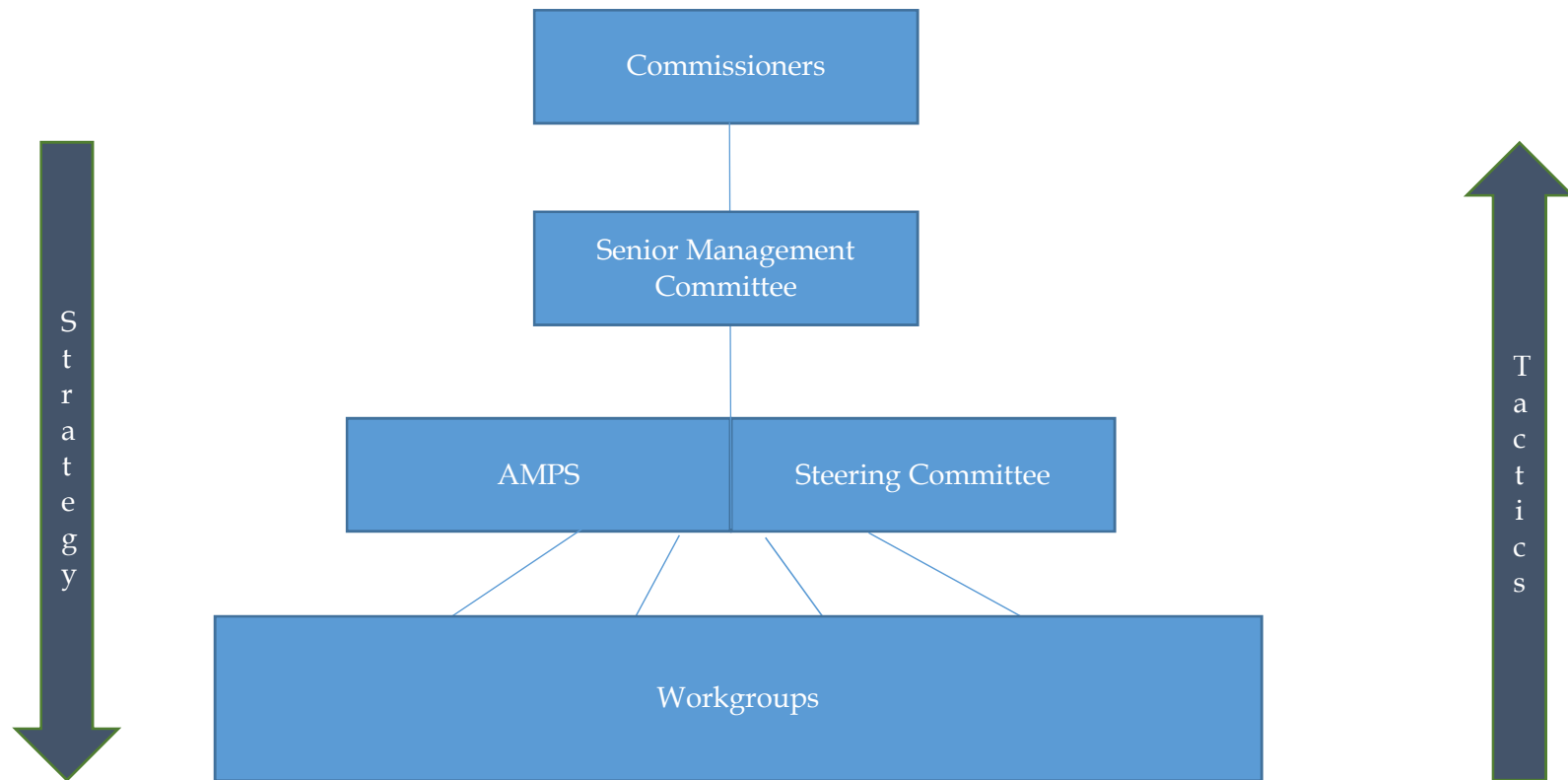


Figure 3.1 TAM Governance Structure

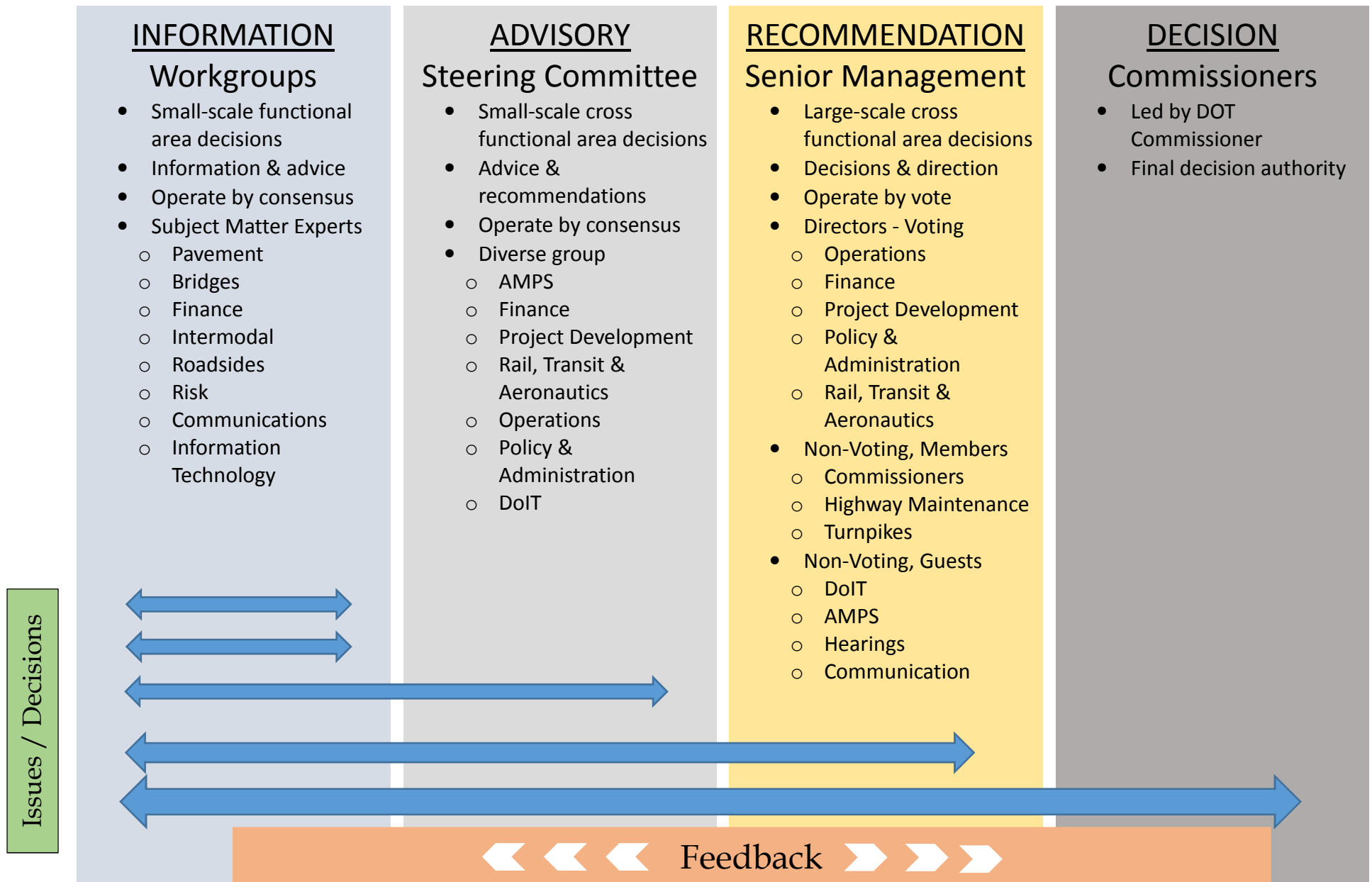


Figure 3.2 TAM Roles and Responsibilities

This structure has been established to:

- Generate consistent decision-making;
- Set consistent performance measures and establish appropriate targets;
- Ensure accountability;
- Guide decisions for preservation of the system;
- Make centralized decisions for the most important projects;
- Encourage decision making at the lowest practical level;
- Manage expectations; and
- Ensure structured and thoughtful investment practices regardless of ownership.

This structure is designed to promote informed decision making using a bottom-up approach, as described in the following sections.

3.1 TAM/TAMP Workgroups

Statewide TAM workgroups have been established to address specific initiatives approved by the Senior Management Committee and to assist with specific areas of Transportation Asset Management Plan (TAMP) development. Workgroups will be formed as needed and as approved by the Steering Committee.

Currently, the TAMP workgroups are related directly to the various subject areas and assets addressed in the development of NHDOT's TAMP in order to meet the requirements of Moving Ahead for Progress in the 21st Century Act (MAP-21). The TAMP workgroups established at this time are in the following areas:

- Strategy
- Pavement
- Bridge
- Intermodal
- Roadside
- Financial
- Ad-hoc

Table 3.1 presents a snapshot of the workgroups

Table 3.1 Workgroup Membership

| | Subject Matter Membership | Workgroup Focus Area |
|------------|---|--|
| Strategy | <ul style="list-style-type: none"> • Directors of Finance, Policy & Administration, Aeronautics Rail & Transit, Operations, and Project Development • Steering Committee Members • Advisory expertise from other workgroups on as-needed basis | <ul style="list-style-type: none"> • Strategic Plan • TAM Policies • Risk Management • Investment Decisions • Training and Communication |
| Pavement | <ul style="list-style-type: none"> • Pavement Management • Highway Design • Highway Maintenance • Construction • Turnpikes | <ul style="list-style-type: none"> • Existing Inventory System & Process • Current Inventory & Condition • Forecast Condition • Target Condition • Management Strategies • Risk Management |
| Bridge | <ul style="list-style-type: none"> • Bridge Design • Bridge Maintenance • Community Assistance • Construction • Turnpikes | |
| Financial | <ul style="list-style-type: none"> • Finance & Contracts • Information Technology • Directors of Finance & Operations | <ul style="list-style-type: none"> • Revenue & Expenditure Streams • Asset Valuations • Budgetary Process • Financial Plan & Investment Strategies • Risk Management |
| Intermodal | <ul style="list-style-type: none"> • Transit • Rail • Bike/Pedestrian • Community Assistance • Aeronautics | <ul style="list-style-type: none"> • Asset Identification • Prioritize Data Collection • Data Collection Standards & Governance • Future TAMP Inclusion • Risk Management |
| Roadside | <ul style="list-style-type: none"> • Transportation Systems Management and Operations • Highway Maintenance • GIS • Traffic • Highway Design | |
| Ad-Hoc | <ul style="list-style-type: none"> • Experts will be identified as the workgroups are developed to meet specific needs. | <ul style="list-style-type: none"> • Focus areas outside the scope of other workgroups. |

Each workgroup shall be responsible for the management of their specific asset class or function from a Statewide perspective. The focus includes maintenance and operations, preservation and capital program actions necessary to efficiently manage the State's assets. The teams are established in support of the overall strategy and asset management priorities provided by the Senior Management and Steering Committees.

The specific mission of the groups is to:

- Establish practices and tools to achieve NHDOT's TAM vision;
- Provide the TAM Steering Committee with input to program update guidelines; and
- Prepare a uniform approach to estimating accomplishments associated with asset-specific TAM efforts.

Each workgroup has the following general responsibilities:

- Generate and review deliverables for TAM and TAMP;
- Assist in gathering information and development of specific areas of the TAMP;
- Assemble technical experts from across the Agency to direct asset management policies and effort;
- Draft technical guidance for program development and Statewide Transportation Improvement Program (STIP) updates;
- Propose quantifiable prioritization criteria to be used by asset management teams in capital program development. Where possible, criteria should incorporate both asset condition and operational performance characteristics. Priorities should be ranked from most important to least important (short-term as well as long-term);
- Develop necessary measures, forms, and submission tools for program development and 10-Year Plan and STIP updates;
- Provide leadership and guidance to program managers in complying with asset management policies and directives;
- Analyze 10-Year Plan and STIP deliverables to advance consistency with overall goals, objectives, and strategies as established by the Senior Management Committee;
- Gather department feedback on asset management policies, directives, requirements and tools, and recommend improvement actions to the Steering Committee;

- Recommend objectives and strategies for preservation - preventive and corrective maintenance;
- Develop repeatable, accurate measures and indices to advance objective, data driven, systems-based decision making;
- Provide a forum for sharing of best practices and addressing issues and concerns related to each team's area of focus; and
- Identify and promote best practices to improve project development and delivery.

The workgroups membership consists of managers and subject matter experts. Teams are diverse in areas of expertise and geography (main office and district employees). There will be a chair or co-chair from AMPS and the Steering Committee assigned to each of the workgroups. The groups will typically have approximately 5 to 10 members. An individual charter will be developed for each workgroup.

The following describes the specific mission, responsibilities, and membership of each workgroup.

Strategy Workgroup

Mission

The primary mission of this workgroup is to gather all data pertinent to Department strategy. This includes the Strategic Plan, Balanced Scorecard, TAM policies, investment decisions, assets in compact area, and risk.

Responsibilities

- Assemble materials on overall Agency and TAMP strategic goals and provide advice on use of materials in TAMP;
- Recommend new global Agency and TAM policies and procedures where none exist;
- Develop and document the policies and procedures;
- Develop and document NHDOT's risk management procedures;
- Develop a risk register and mitigation strategies at the agency, program, and project levels; and
- Implement and monitor risk mitigation strategies.

Membership

This workgroup has approximately 10 members including all members of the Steering Committee. This group is led by the head of the Administrator of AMPS.

Pavement Workgroup

Mission

Develop the most cost effective strategy to achieve pavement performance goals.

Responsibilities

- Measure and document condition/performance data;
- Develop and document procedures for forecasting pavement condition including defining the performance measures and the levels of service for the various projected financial scenarios;
- Develop and document the target criteria for these performance measures; and
- Develop and document the pavement management strategies including areas such as whole life cycle management, tradeoff analysis, risk, etc. and how these strategies are implemented by the Department.

Membership

This workgroup has approximately 10 members including representatives from the districts. The Chief of Pavement Management will lead this workgroup.

Bridge Workgroup

Mission

Develop bridge strategies to preserve and promote highway corridors (tiers) to meet Department goals.

Responsibilities

- Document the inventory and develop element level condition status for all bridges in the State;
- Gather all data pertinent to asset management policies, practices, and procedures of the bridge asset class and to assist with the development of the bridge-related sections of the TAMP. This includes supporting the relevant TAM workgroups in implementing the TAM Implementation Plan (TIMP) initiatives as they pertain to the bridge asset class;
- Develop and document procedures for forecasting bridge condition including defining the performance measures and the levels of service for the various projected financial scenarios;

- Develop and document the target criteria for these performance measures;
- Develop and document the bridge management strategies including areas such as whole life cycle management, tradeoff analysis, risk, etc.; and
- Provide recommendations on use of available resources based on tier level and current bridge condition.

Membership

This workgroup has approximately 10 members including representatives from the districts. The Administrators of Bridge Maintenance and Bridge Design will co-lead this group.

Intermodal Asset Workgroup

Mission

Since pavements and bridges are the primary assets covered in the initial iteration of the TAMP, this workgroup's mission is to determine the maturity of intermodal assets and include a path forward for inclusion of these assets in future iterations of the TAMP.

Responsibilities

- Determine which asset classes will be included and prioritize data collection;
- Develop data collection standards and data governance;
- Conduct a TAM maturity assessment for intermodal asset classes; and
- Document asset specific TAM procedures for these asset classes and develop a path forward for inclusion of these assets in future iterations of the TAMP.

Membership

The workgroup has approximately 5 members and includes representatives from the districts. This group will be co-led by the Administrator of Rail & Transit and the Administrator of Aeronautics.

Roadside Asset Workgroup

Mission

Since pavements and bridges are the primary assets covered in the initial iteration of the TAMP, this workgroup's mission is to determine the maturity of each of the roadside asset classes and include a path forward for inclusion of these assets in future iterations of the TAMP.

Responsibilities

- Determine which asset classes will be included and prioritize data collection;

- Develop data collection standards and data governance;
- Conduct a TAM maturity assessment for the roadsides asset classes; and
- Document asset specific TAM procedures for these asset classes and develop a path forward for inclusion of these assets in future iterations of the TAMP.

Membership

The workgroup has approximately 10 members and includes representatives from the districts. This group will be co-led by the assistant directors of Operations and Project Development.

Financial Workgroup

Mission

The primary mission of this workgroup is to assist with documenting the financial aspects (financial plan and investment strategies) of the Agency as they pertain to TAM and the TAMP. This workgroup will work closely with the Strategy and Ad-hoc workgroups in developing the financial sections of the TAMP.

Responsibilities

- Assemble historical and budgeted financial data and information, what-if analysis, and reporting information;
- Document NHDOT's current asset valuation processes and procedures;
- Document NHDOT's revenue and expenditure streams;
- Document the budgetary process in the context of allocation of funds to the various programs and across asset classes.

Membership

This workgroup has 5 members. The group will be led by the Assistant Administrator of Finance.

Ad-hoc TAMP Workgroups

Mission

The primary mission of these workgroups is to assist the other TAMP workgroups and the Steering Committee on an as needed basis on areas of the TAMP including organization, legislative/political process, asset registry (inventory and condition), system demand and forecasting, information technology, training, and communications. These groups will assist with technical expertise for areas that emerge or are not covered by other workgroups. The nature of an Ad-Hoc workgroup is one that comes together for a particular task, accomplishes that task, and then dissolves.

Membership

This workgroup has approximately 10-15 members in addition to representatives from highway maintenance and Senior Management Committee/Commissioner's staff. This group will be led by the AMPS Administrator.

3.2 TAM Steering Committee

Mission

The TAM Steering Committee, co-led by NHDOT Directors and with day-to-day coordination of the group delegated to the AMPS Administrator, has an advisory role on all TAM related decisions including cross functional area decisions. The committee operates by consensus and consists of a diverse group of personnel across NHDOT. The mission of the committee is to:

- Bring leaders from across the Agency together to direct asset management policies and effort;
- Recommend policy to achieve NHDOT's TAM vision;
- Recommend deliverables for Senior Management Committee approval;
- Develop and articulate an investment strategy, framework, and process to preserve and manage the multimodal transportation assets of the State in a manner that is economically, environmentally, and socially sustainable.

Elements include:

- Asset management business structure and process: definitions, descriptions, roles and responsibilities.
- Investment strategy definition.
- Accountability definition.
- Augmenting program update instructions.
- Create a standard asset management business structure and process using existing titles to staff permanent asset/goal teams.
- Serve as an advocate and provide guidance for the TAM and TAMP workgroups;
- Define objectives and strategies for preservation - preventive and corrective maintenance;
- Work with AMPS and recommend performance measures and review performance of TAM and TAMP workgroups;
- Align the Department's asset specific management efforts across the Divisions;
- Develop/share best practices across the workgroups;

- Recommend policy and procedure modifications to improve project development and delivery; and
- Assist the Senior Management Committee in providing an advocacy role with FHWA on policy and procedural matters relating to asset management.

Responsibilities

- Review all asset management policies and standards that impact internal and external stakeholders prior to issuing it to the Senior Management Committee;
- Assist the Senior Management Committee with managing communications with external stakeholders;
- Set expectations for Program Updates and STIP updates in line with TAM principles;
- Oversee the development of the TAMP; and
- Assist the TAM workgroups with executing TIMP initiatives.

Membership

The Steering Committee will be coordinated by AMPS. The committee consists of 25-30 members from across the DOT as appointed by the Senior Management Committee. The groups represented in this committee will at least include:

- AMPS;
- Finance;
- Project Development;
- Aeronautics, Rail, and Transit;
- Operations;
- Policy and Administration; and
- DoIT.

3.3 Senior Management Committee

Mission

The Senior Management Committee, led by the Commissioner or their designee provides strategic vision and Executive leadership for asset management. The committee has the power to make large-scale cross functional area decisions and to make recommendations to the Commissioners on department-wide policies. The mission of the committee is to:

- Ensure asset management strategy and policy is in harmony with long term strategic plans and Statewide policy; and

- Create an environment in which the most effective program of projects is selected and delivered on time and on budget.

Responsibilities

- Review all asset management policies that impact internal and external stakeholders and recommend to Commissioner for approval;
- Review and decide on asset management standards, practices, and programs; and
- Manage communications with external stakeholders.

Membership

The Senior Management Committee consists of 10-15 regular members. The regular members fall under two categories – voting and non-voting. The committee operates by a voting process.

The voting members are as follows:

- Director of Project Development
- Director of Operations
- Director of Finance
- Director of Policy and Administration
- Director of Rail, Transit and Aeronautics

The non-voting members are as follows:

- Commissioner
- Assistant Commissioner
- Deputy Commissioner
- Assistant Director of Project Development
- Assistant Director of Operations
- Administrator of Turnpikes
- Administrator of Highway Maintenance

The technical staff, considered as part of the committee, on an as-needed basis are:

- Administrator of AMPS
- Administrator of Information Technology assigned to NHDOT

3.4 Commissioners

The Commissioners of NHDOT have final decision-making authority for department-wide policy level decisions. This includes asset management policies and standards that impact external stakeholders. The Commissioners will receive information and recommendations from the Senior Management Committee.

4.0 AMPS STAFF

Overall coordination responsibility for asset management resides with the Asset Management, Performance, and Strategies team. The mission, responsibilities, and membership is described below.

Mission

AMPS is the central coordination hub for NHDOT's transportation asset management activities.

Responsibilities

- Support the development of asset/performance strategies at an Senior Management and subject matter level, including developing strategic performance indices, prioritizing of desired level of service/performance by tiers, and integrating financial management to outputs and outcomes;
- Developing draft policies and goals for whole life management and risk;
- Development and update of the NHDOT Transportation Asset Management Strategic Plan and Work Plan;
- Conveying the asset management initiative to all NHDOT employees and partners;
- Continuous development and implementation of the TAM work plan. This will include assisting each of the divisions charged with mobilizing the resources necessary to carry out the initiatives as well as monitoring and providing assistance as necessary throughout the implementation process;
- Developing the MAP-21 required Transportation Asset Management Plan;
- Forming and coordinating asset management Steering and Workgroup Committees made up of representatives from various sections and bureaus;
- Reporting progress to the Steering Committee and Executive Staff; and
- Providing material for ongoing communication regarding asset management implementation at NHDOT to internal and external employees.

The TAM Coordinator and AMPS staff will not be performing all of the work needed to implement TAM, rather they will guide the effort of the various workgroups and ensure progress is being made in a structured manner.

Membership

AMPS consists of an Administrator and associated staff assigned by the Senior Management Committee.